

[Short Communication]

Discovery of *Alopecosa volubilis* (Araneae: Lycosidae) from Japan

Hozumi Tanaka¹ and Mayumi Matsuda²

¹ Biological Laboratory, Sonoda Gakuen Women's College,
Minamitsukaguchi-cho, 7-29-1,
Amagasaki-shi, Hyogo, 661-8520 Japan
E-mail: k41025@sonoda-u.ac.jp

² 25, Kita-ku, Nukabira, Kamishihoro-cho, Kato-gun,
Hokkaido, 080-1403 Japan

Abstract — A wolf spider, *Alopecosa volubilis* Yoo, Kim & Tanaka 2004 is newly recorded from Japan based on specimens recently collected from Hokkaido by pit fall trapping. This species is redescribed with illustrations of its male palpal organs and female genitalia.

Key words — Lycosidae, *Alopecosa*, new records, Hokkaido, Japan

The first paper of *Alopecosa volubilis* was published on the basis of the specimens collected from Korea (Yoo, Kim & Tanaka 2004). Mr. S. Hori recently collected some individuals of this species from Hokkaido by pit fall trapping. This species is new to the Japanese fauna, and will be redescribed in the present paper. The female of this species is illustrated for the first time.

Abbreviations used herein are as follows: AER, anterior eye row; ALE, anterior lateral eye(s); AME, anterior median eye(s); PME, posterior median eye.

Before going father, we are sincerely grateful to Dr. Yoo J.-S., Korea and Mr. Shigehisa Hori, Hokkaido for offering invaluable specimens and information for the present study.

Alopecosa volubilis Yoo, Kim & Tanaka 2004
[Japanese name: Nopporo-komorigumo]
(Figs. 1–5)

Alopecosa volubilis Yoo, Kim & Tanaka 2004, p.2, figs 1–6, 11

Descriptions (based on a male and a female from Nopporo Forest Park, Ebetsu-shi, Hokkaido, Japan). Measurements (σ/φ in mm). Body length 5.54/6.38. Carapace length 2.92/3.15, width 2.00/2.15. Abdomen length 2.62/3.23, width 1.62/2.15. Measurements of palp and legs as shown in Table 1.

Male: Carapace dark reddish brown, having yellowish brown median band and edge with white pubescence (Fig. 1). AER procurved and shorter than PME; AME slightly larger than ALE; AME separated from each other and from ALE by less than half the diameter of AME. Clypeus reddish brown, slightly shorter than the diameter of AME. Chelicerae dark reddish brown, with three teeth on retromargin. Maxillae and labium yellowish brown. Sternum black, with straight hairs. Abdomen grayish brown, with some pairs of black spots at lower part on dorsal surface; a lanceolate median mark indistinct; lateral sides grayish brown, with illegular black markings; venter light yellowish brown, with many white long hairs and black short, stout hairs. Legs black on coxae, trochanters and femora I–III, except for light yellow of remaining parts. Palp dark reddish brown, with many black hairs at lateral sides on femur; tarsal organs (Figs. 2–3) with stout transverse median apophysis turned downwards on the tip. Tarsus with no claw.

Female. Similar to the male, but differs from it in the following points. Abdomen with no short, stout hairs on venter (Fig. 1). Legs dark reddish brown on femora I–IV, except for reddish brown of remaining parts. Palp reddish brown with black markings; tarsus with one claw. Epigynum having an oval septum at central base and a pair of black oval parts at its top (Fig. 4); a pair of big black peanut's shell-like spermathecae at outer side, black semi-circles in middle and horn-like ducts in inner side (Fig. 5).

Variation (mm). Total length σ 5.16–5.59, φ 6.15–7.38. Carapace length σ 2.85–3.00, φ 2.92–2.38; width σ 2.00–2.08; φ 2.15–2.54. Abdomen length σ 2.31–2.69; φ 3.23–4.00; width σ 1.54–1.85; φ 2.15–2.62.

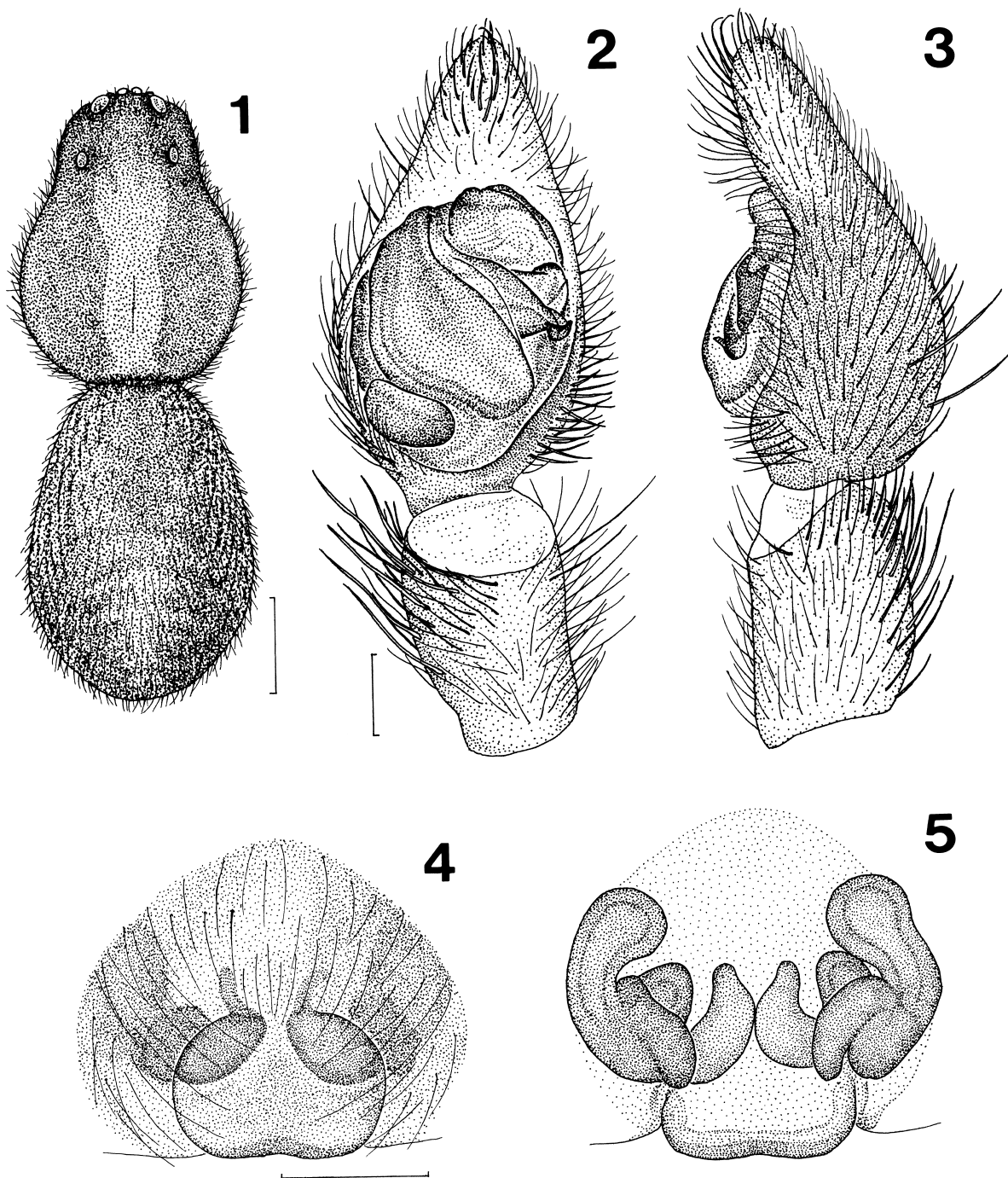
Materials examined. Hokkaido-Nopporo Forest Park, Ebetsu-shi, (by pit fall trapping): 2 φ , 11. VII. 2000; 7 σ , 16–30. V. 2001; 1 φ 4 σ , 29. V. 2002; 2 φ , 2–16. VII. 2003, S.Hori leg. (Collection M. Matsuda and H. Tanaka): Korea — Mt. Ungilsan, Namyangjoo City, Konggi-do: 1 σ (paratype), 26. VII. 1987, P.-K. Kim leg. (Collection J.-S. Yoo).

Distribution. Japan (Hokkaido) and Korea.

Biological notes. This spider is found in forests.

Table 1. Measurements of palp and legs of 1 σ and 1 φ from Nopporo Forest Park, Hokkaido of *Alopecosa volubilis* (in mm).

	Femur	Patella and tibia	Metatarsus	Tarsus	Total
Palp	1.08/1.31	1.00/1.23	—	1.00/1.00	3.08/3.54
Leg I	1.92/2.31	2.31/2.77	1.54/1.62	1.23/1.23	7.00/7.93
Leg II	1.69/2.15	2.15/2.62	1.54/1.54	1.15/1.15	6.53/7.46
Leg III	1.77/2.15	2.00/2.54	1.69/1.92	0.85/1.15	6.31/7.76
Leg IV	2.38/3.00	2.92/3.62	2.69/3.15	1.23/1.38	9.22/11.15



Figs. 1–5. *Alopecosa volubilis* Yoo, Kim & Tanaka 2004 (Specimens from Nopporo Forest Park, Hokkaido) — 1, Carapace and abdomen (dorsal view); 2, male palp (ventral view); 3, same (retrolateral view); 4, epigynum (ventral view); 5, female genitalia (dorsal view). (Scales for Fig. 1, 1.0 mm; for Figs. 2–5, 0.2 mm.)

Remark. This species can be easily distinguished from other Japanese congeners by having three teeth on retromargin of maxilla.

References

Yoo, J.-S., Kim, J.-P. & Tanaka, H., 2004. A new species in the

genus *Alopecosa* Simon, 1885 from Korea (Araneae: Lycosidae). *Zootaxa*, 397: 1–7.

Received October 6, 2004 / Accepted December 2, 2004